

What is claimed is :

1 1. A device for invalidating plane objects, in particular defective
 2 products in the securities sector, such as banknotes and notes of value, by
 3 perforating means, the device having a horizontal base plate (9) onto which
 4 the objects (14) to be invalidated are placed, and die plates (13, 17, 18)
 5 which are vertically movable and parallel to said base plate, and having a
 6 drive mechanism by which the die plates can be displaced up and down,
 7 wherein the perforating means comprises at least one cutting bushing (23)
 8 with a hollow paper drill (19) interacting with the cutting bushing in order to
 9 displace the paper scrap in the paper drill.

1 2. The device as claimed in claim 1, wherein the cutting bushing
 2 (23) is provided in the base plate (9), and wherein the paper drill (19) is
 3 provided on the die plates (13, 17, 18).

1 3. The device as claimed in claim 2, wherein the paper drill (19) is
 2 designed such that it is open at the top, and wherein the paper scrap is
 3 displaced upward.

1 4. The device as claimed in claim 2, wherein the die plates comprise
 2 a guide plate (17) for guiding the paper drill (19), which serves as a pressing
 3 plate for the paper products (14) to be invalidated, a drill-receiving plate
 4 (18), which receives the paper drills (19), and a pressing plate (13).

1 5. The device as claimed in claim 3, wherein the die plates comprise
 2 a guide plate (17) for guiding the paper drill (19), which serves as a pressing
 3 plate for the paper products (14) to be invalidated, a drill-receiving plate
 4 (18), which receives the paper drills (19), and a pressing plate (13).

1 6. The device as claimed in claims 1 to 5, wherein the drive
 2 mechanism comprises a hydraulic cylinder (01), which by means of an
 3 eccentric shaft (02) moves the pressing plate (13) downward between
 4 running rollers (05) against the objects (14) to be invalidated.

1 7. The device as claimed in one of claims 1 to 5, wherein the
2 pressing plate (13) and the receiving plate (18) are connected at least to
3 springs (22).

1 8. The device as claimed in one of claims 1 to 5, wherein stops (16)
2 which limit the upper path of the guide plate (17) in order to pull the paper
3 drills (19) out of the material being punched (14) are provided on the sides of
4 the device.

1 9. The device as claimed in one of claims 1 to 5, wherein the upper
2 ends of the paper drills (19) are open and wherein the paper scrap is pushed
3 out into a support (03), which serves as a container.

1 10. The device as claimed in one of claims 1 to 5, wherein the paper
2 scrap is removed from the container (03) by means of a suction removal
3 device.

1 11. A method of invalidating plane objects, in particular defective
2 products in the securities sector, such as bank notes and notes of value, by
3 perforation, having a device as claimed in claims 1 to 5, which method
4 comprises the following steps:

5
6 (a) collecting the defective products and guiding them onto a base plate
7 of the invalidating machine;

8
9 (b) displacing die plates onto the products to be invalidated;

10
11 (c) invalidating the products by the paper drills;

12
13 (d) lifting the die plates off and pulling the paper drills out of the
14 invalidated products; and

15
16 (e) pushing the products out of the invalidating machine.